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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/808,753	03/25/2004	Stephen Yue	60,130-1874/03MRA0392	5869

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EXAMINER

AFZALI, SARANG

ART UNIT	PAPER NUMBER
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3729

DATE MAILED: 12/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/808,753

Applicant(s)

YUE ET AL.

Examiner

Sarang Afzali

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) 16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03/25/2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date: ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>07182005</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-15, drawn to a method, classified in class 29, subclass 897.2.
 - II. Claim 16, drawn to an article, classified in class 428, subclass 614.

The inventions are distinct, each from the other because of the following reasons:

Inventions I and II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the product can be made by a materially different process such as by applying a thickened coating portion the surface of a stabilizer bar by a materially different process such as by physical or chemical vapor deposition or sputtering as opposed to the claimed method of thermally spraying.

Because these inventions are distinct for the reasons given above and the search required for Group I is not required for Group II, restriction for examination purposes as indicated is proper.

During a telephone conversation with Bill Gottschalk on 9-21-05 a provisional election was made with traverse to prosecute the invention of Group I, claims 1-15. Affirmation of this election must be made by applicant in replying to this Office action. Claim 16 has been withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1 and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by Smith et al. (US 6,189,663).

As applied to claim 1, Smith et al. teach a manufacturing process wherein thermal spray is used on the surface of a bar (piston rod (12), Figs. 1 & 2) forming a thickened portion (shown as coating (32), Figs. 1 & 2) of the bar (12) relative to another portion of the bar (end portions).

As applied to claims 7, Smith et al. teach the bar (12, Fig. 1) formed into a desired stabilizer bar shape by forming the rod (12) from a stock and roughened by grit blasting (col. 4, lines 34-35) prior to thermal spraying step.

4. Claims 1, 7, and 15 are rejected under 35 U.S.C. 102(e) as being anticipated by Smith (US 6,547,894).

As applied to claim 1, Smith teaches a method of making a stabilizer bar (10) comprising the step of thermal spraying (col. 2, lines 34-35) a surface (inside surfaces of both ends of tubular bar (30), Figs. 1 & 2) forming a thickened portion of the bar on the surface (end portions) relative to another portion of the bar (middle portion). Note that Smith teaches that applying the fusible material (steps 42 & 44, Fig. 5) is done by thermal spraying (col. 2, lines 34-35).

As applied to claims 7, Smith teaches the bar (10, Fig. 1) formed into a desired stabilizer bar shape by forming a tube (30), which is used to make the stabilizer bar (10) prior to thermal spraying step.

As applied to claim 15, Smith teaches a forming step (any of steps 48, 50, 52 and 56, Fig. 5) subsequent to the thermal spraying step.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 2-6, 8-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith in view of Ohno et al. (US 4,526,628).

As applied to claims 2 and 8, Smith teaches the claimed invention with the exception of the shot peening step. However, Ohno et al. teaches a method of manufacturing a car stabilizer bar comprising a shot peening step subsequent to the coating step (Fig. 4) in order to improve its fatigue durability (col. 4, lines 3-4). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided Smith with the shot peening step in light of Ohno et al. teaching to provide an effective means of improving the fatigue durability of the stabilizer member.

As applied to claim 3, Smith teaches the claimed invention with the exception of the heat treating step occurring between the thermal spraying and shot peening steps. However, Ohno et al. teach a heat treating step (annealing step 4, Fig. 4) that occurs between thermal spraying (step 6, Fig. 4) and shot peening (step 5, Fig. 4) to accelerate age hardening of the material(col. 3, lines 65-66). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided Smith with the heat treating step as taught by Ohno et al. to provide an effective means of elevating the yield point of the material without reducing the tensile strength (col. 3, lines 66-67).

As applied to claim 4, Smith further teaches forming step (step 48) occurring between the thermal spraying (step 42, Fig. 5) and heat treating step (step 54, Fig. 5).

As applied to claim 5, Smith teaches the invention cited with the exception of the forming step between thermal spraying and shot peening steps. However, Ohno et al. teaches a forming step (step 3, Fig. 4) occurring between the thermal spraying (coating step 6, Fig. 4) and shot peening (step 5, Fig. 4) in order to provide a desired shape of the material (col. 3, line 59). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided Smith with the forming step as taught by Ohno et al. to bend the material into a desired shape.

As applied to claim 6, Smith teaches the invention cited with the exception of the heat treating prior to the forming step. However, Ohno et al. teaches a heat treating step (quenching step 2, Fig. 4) prior to forming (bending step 3, Fig. 4) to produce a martensite structure with good toughness in the material and thus improve the surface texture of and facilitate bending of the material (col. 3, lines 14-23). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided Smith with the pre-heat treating step as taught by Ohno et al. to facilitate the forming and bending of the material.

As applied to claim 9, Smith teaches the invention cited with the exception of the pre-heating step. However, Ohno et al. teaches a pre-heating step (quenching step 2, Fig. 4) prior to the thermal spraying (coating step 6, Fig. 4) to produce a martensite structure with good toughness in the material and thus improve the surface texture of and facilitate bending of the material (col. 3, lines 14-23). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided

Smith with the pre-heat treating step as taught by Ohno et al. to facilitate the forming and bending of the material.

As applied to claim 10, Smith teaches the invention cited with the exception of the heat treating the bar between the forming and thermal spraying steps. However, Ohno et al. teach a heat treating step (annealing step 4, Fig. 4) that occurs between forming (bending step 3, Fig. 3) and thermal spraying (coating step 6, Fig. 3) to accelerate age hardening of the material (col. 3, lines 65-66). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided Smith with the heat treating step as taught by Ohno et al. to provide an effective means of elevating the yield point of the material without reducing the tensile strength (col. 3, lines 66-67).

As applied to claim 11, Smith teaches the invention cited with the exception of the shot peening the bar between the forming and thermal spraying steps. However, Ohno et al. teach a shot peening step (step 5, Fig. 3) that occurs between forming (bending step 3, Fig. 3) and thermal spraying (coating step 6, Fig. 3) in order to improve its fatigue durability (col. 4, lines 3-4). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided Smith with the shot peening step in light of Ohno et al. teaching to provide an effective means of improving the fatigue durability of the stabilizer member.

As applied to claim 12, Smith teaches the invention cited with the exception of the heat treating the bar between the shot peening and forming steps. However, Ohno et al. teach a heat treating step (annealing step 4, Fig. 4) that occurs between forming

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(bending step 3, Fig. 3) and shot peening (step 5, Fig. 3) to accelerate age hardening of the material (col. 3, lines 65-66). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided Smith with the heat treating step as taught by Ohno et al. to provide an effective means of elevating the yield point of the material without reducing the tensile strength (col. 3, lines 66-67).

As applied to claim 13, Smith teaches the invention cited with the exception of the heat treating prior to the thermal spraying and shot peening steps. However, Ohno et al. teaches a heat treating step (quenching step 2, Fig. 4) prior to thermal spraying (coating step 6, Fig. 4) and shot peening (step 5, Fig. 4) to produce a martensite structure with good toughness in the material and thus improve the surface texture of and facilitate bending of the material (col. 3, lines 14-23). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided Smith with the pre-heat treating step as taught by Ohno et al. to facilitate the forming and bending of the material.

As applied to claim 14, Smith teaches the invention cited with the exception of the forming the bar prior to the shot peening step. However, Ohno et al. teaches a forming step (step 3, Fig. 4) occurring prior to shot peening step (step 5, Fig. 4) in order to provide a desired shape of the material (col. 3, line 59). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided Smith with the forming step as taught by Ohno et al. to bend the material into a desired shape.

Conclusion


7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sarang Afzali whose telephone number is 571-272-8412. The examiner can normally be reached on 7:00-3:30 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Vo can be reached on 571-272-4690. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

S.A.
12/14/2005


MARC JIMENEZ
PRIMARY EXAMINER
12-14-05